

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the applications:

Listing of Claims

1. (Currently Amended) An I.V. flush syringe assembly comprising:
a barrel including a cylindrical side wall having an inside surface defining a chamber for retaining fluid, an open proximal end and a distal end including a distal wall with an elongate tip extending distally therefrom having a passageway therethrough in fluid communication with said chamber; and
a plunger including an elongate body portion extending outwardly from said open proximal end of said barrel, said elongate body portion having a proximal end, a distal end having a discontinuity and a resilient stopper slidably positioned in fluid-tight engagement with said inside surface of said barrel for drawing fluid into and driving fluid out of said chamber by movement of said stopper relative to said barrel, ~~said elongate body portion extending outwardly from said open proximal end of said barrel,~~ said stopper including a distal end having a distal surface having a first discontinuity and a second discontinuity located distally from said first discontinuity and a proximal end having a cavity therein, said distal end of said plunger connected to said stopper by a complementary detent structure defining a first detent position wherein said plunger discontinuity engages said first discontinuity and a second detent position wherein said plunger discontinuity engages said second discontinuity, said detent structure being configured so that a distally directed force applied to said plunger after fluid has been delivered from said chamber causes said plunger to move distally with respect to said stopper from said first detent position to said second detent position so a distal tip on said distal end of said plunger contacts said inside surface of said stopper forcing part of said distal end of said stopper into said passageway to move fluid distally in said passageway
~~— wherein, fluid is moved distally in said passageway~~ after fluid has been delivered from said chamber and said stopper is in contact with said distal wall.
2. (Cancelled)
3. (Original) The syringe assembly of claim 1 wherein said stopper includes a conically shaped distal surface and said inside surface of said barrel at said distal wall being conically shaped wherein said total included angle of said inside surface of said barrel at said distal wall is greater than said total included angle of said stopper distal surface.
4. (Currently Amended) The syringe assembly of claim [2] 1 further including a distally directed projection on said distal end of said stopper shaped to fit in said passageway when said plunger and said stopper are engaged in said second detent position.

5. (Currently Amended) The syringe assembly of claim [2] 1 wherein said inside surface of said stopper includes a proximally directed protuberance configured to contact said distal tip of said plunger when said plunger and said stopper are engaged in said second detent position.

6. (Cancelled)

7. (Currently Amended) The syringe assembly of claim [6] 1 wherein said discontinuity on said distal end of said plunger includes a raised projection.

8. (Original) The syringe assembly of claim 7 wherein said raised projection is an annular ring.

9. (Original) The syringe assembly of claim 8 wherein said first discontinuity is a recess for containing said raised projection on said distal end of said plunger.

10. (Original) The syringe assembly of claim 9 wherein said recess is annularly shaped.

11. (Original) The syringe assembly of claim 1 including flush solution in said chamber.

12. (Original) The syringe assembly of claim 11 further including a tip cap releasably connected to said tip of said syringe barrel for sealing said passageway.

13. (Original) The syringe assembly of claim 11 wherein said flush solution is selected from the group consisting of saline flush solution and heparin lock flush solution.

14. (Original) The syringe assembly of claim 1 wherein said stopper is made of material selected from the list consisting of thermoplastic elastomers, natural rubber, synthetic rubber, thermoplastic materials and combinations thereof.

15. (Original) The syringe assembly of claim 1 further comprising a needle assembly including a cannula having a proximal end, a distal end and a lumen therethrough, and a hub having an open proximal end containing a cavity and a distal end attached to said proximal end of said cannula so that said lumen is in fluid communication with said cavity, said needle assembly being removably attached to said tip of said barrel through engagement of said tip to said cavity so that said lumen is in fluid communication with said chamber.

16. (Cancelled)
17. (Cancelled)
18. (Cancelled)
19. (Cancelled)
20. (Cancelled)
21. (Cancelled)
22. (Cancelled)
23. (Cancelled)
24. (Cancelled)
25. (Cancelled)
26. (Cancelled)
27. (Cancelled)
28. (Cancelled)